

# Notice of Allowability

Application No.

10/023,013

Examiner

Daniel S. Metzmaier

Applicant(s)

NARAYANAN ET AL

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 1/26/2004 & interview of 2/10/2004.
2. ☒ The allowed claim(s) is/are 1-9,12 and 14.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>102004</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                       |
|   | 9. <input type="checkbox"/> Other _____  |

Art Unit: 1712

### **EXAMINER'S AMENDMENT**

Claims 1-9, 12 and 14 are allowed.

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William Davis (Reg # 30,744) on February 10, 2004.

The application has been amended as follows:

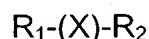
Art Unit: 1712

Replace all pending claims as follows.

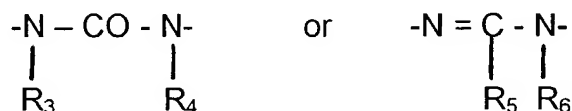
Claim 1. (Currently amended) A stable o/w microemulsion comprising

(i) between about 0.01 and about 10 wt. % of a concentrate formulation containing:

(a) between about 0.05 and about 25 wt. % of at least one active aza compound selected from the group consisting of Amitraz and an aza compound having the formula:



wherein one of  $R_1$  and  $R_2$  is alkenylphenyl, aminophenyl or a sulfur- and/or nitrogen-containing heterocyclic radical containing 3 to 5 carbon atoms in a 4 to 6 membered ring and the other of  $R_1$  and  $R_2$  is the same or is selected from the group consisting of amidosulfuron, phenyl, sulfonylphenyl, phenyloxy and phenyloxysulfonyl where said phenyl radicals and said heterocyclic radicals of  $R_1$  and  $R_2$  are optionally substituted with lower alkyl, halo, haloalkyl, cyano,  $C_1$  to  $C_4$  alkyl ether,  $C_1$  to  $C_4$  ester, carboxyl, ketone amido and amino and X is :



where  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  are each individually selected from the group consisting of hydrogen, lower alkyl, cyano, and amino,

(b) between about 2 and about 40 wt. % of a lipophilic lactam selected from the group consisting of  $C_8$  to  $C_{18}$  N-alkyl pyrrolidone,  $C_8$  to  $C_{18}$  alkyl caprolactam and a mixture thereof,

Art Unit: 1712

(c) between about 2 and about 20 wt. % of a moisture scavenging agent selected from the group consisting of a hindered carbopolyimide, a molecular sieve and a mixture thereof,

(d) between about 10 and about 80 wt. % of a lipophilic/hydrophilic mixture of having an overall HLB of 7 to 20, comprising at least two emulsifiers wherein at least one of said emulsifiers in the mixture are non-ionic and

(e) between 0 and about 15 wt. % of an aromatic oil;

(ii) between about 90 and about ~~99.99~~ 99.98 wt.% water and

(iii) between about 0.01 and about 5 wt.% of an alkaline buffering agent selected from the group consisting of a Na, K and/or ammonium salt of a weak acid, a polyalkanol amino C<sub>1</sub> to C<sub>4</sub> alkane, a polyamine salt of a weak acid, a Na, K and/or ammonium salt of a phenol or polyphenol, an amine salt of a weak acid and a mixture of the foregoing buffering agents to adjust the pH of the microemulsion to 8-11.

Claim 2. (Original) The microemulsion of claim 1 wherein the buffering agent is a Na, K or ammonium salt of a weak acid selected from the group consisting of carbonic, malonic, malic, succinic, glutaric, boric acid and mixtures thereof.

Claim 3. (Original) The microemulsion of claim 2 wherein the buffering agent is a carbonate salt or a mixture of carbonate and bicarbonate salts.

Claim 4. (Previously presented) The microemulsion of claim 2 wherein said salt is a sodium salt.

Claim 5. (Original) The microemulsion of claim 1 wherein the aza compound is selected from the group of a sulfuron and amitraz.

Claim 6. (Original) The microemulsion of claim 1 which contains between about 0.1 and about 2 wt.% of said buffering agent.

Claim 7. (Original) The microemulsion of claim 1 which contains between about 0.2 and about 1 wt. % of said buffering agent.

Claim 8. (Original) The microemulsion of claim 1 containing between about 0.02 and about 5.0 wt. % of said concentrate.

Claim 9. (Previously presented) The microemulsion of claim 8 wherein said concentrate contains between about 8 and about 15 wt. % (a); between about 15 and about 30 wt. % (b); between about 7 and about 15 wt. % (c) and between about 65 and about 78 wt. % (d).

Claim 10. (Cancelled).

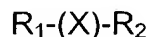
Claim 11. (Cancelled).

Claim 12. (Previously presented) The application of the microemulsion of one of claims 1, 6, 7 or 9 in a biocidal amount to livestock by dip or by spray.

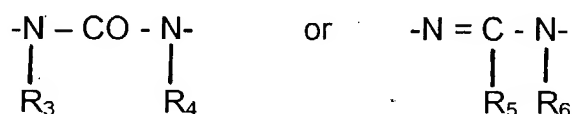
Claim 13. (Cancelled).

Claim 14. (Currently amended). A stable o/w microemulsion comprising  
(i) between about 0.01 and about 10 wt. % of a concentrate formulation containing:

(a) between about 0.05 and about 25 wt. % of at least one active aza compound selected from the group consisting of Amitraz and an aza compound having the formula:



wherein one of  $R_1$  and  $R_2$  is alkenylphenyl, aminophenyl or a sulfur- and/or nitrogen-containing heterocyclic radical containing 3 to 5 carbon atoms in a 4 to 6 membered ring and the other of  $R_1$  and  $R_2$  is the same or is selected from the group consisting of amidosulfuron, phenyl, sulfonylphenyl, phenyloxy and phenyloxysulfonyl where said phenyl radicals and said heterocyclic radicals of  $R_1$  and  $R_2$  are optionally substituted with lower alkyl, halo, haloalkyl, cyano,  $C_1$  to  $C_4$  alkyl ether,  $C_1$  to  $C_4$  ester, carboxyl, ketone amido and amino and X is:



where  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  are each individually selected from the group consisting of hydrogen, lower alkyl, cyano, and amino,

(b) between about 2 and about 40 wt. % of a lipophilic lactam selected from the group consisting of  $C_8$  to  $C_{18}$  N-alkyl pyrrolidone,  $C_8$  to  $C_{18}$  alkyl caprolactam and a mixture thereof,

(c) between about 2 and about 20 wt. % of a moisture scavenging agent selected from the group consisting of a hindered carbopolyimide, a molecular sieve and a mixture thereof,

(d) between about 10 and about 80 wt. % of a lipophilic/hydrophilic mixture of having an overall HLB of 7 to 20, comprising at least two emulsifiers wherein at least one of said emulsifiers in the mixture are non-ionic;

Art Unit: 1712

(e) between 0 and about 15 wt. % of an aromatic oil selected from the group consisting of an alkyl naphthalene, a hydrogenated alkyl naphthalene and a mixture thereof;

(ii) between about 90 and about 99.99 99.98 wt. of water and

(iii) between about 0.01 and about 5 wt.% of an alkaline buffering agent selected from the group consisting of a Na, K and/or ammonium salt of a weak acid, a polyalkanol amino C<sub>1</sub> to C<sub>4</sub> alkane, a polyamine salt of a weak acid, a Na, K and/or ammonium salt of a phenol or polyphenol, an amine salt of a weak acid and a mixture of the foregoing buffering agents; and

(iv) wherein further added to extend said emulsion between about 5 and about 12 wt.% of an aromatic oil selected from the group consisting of an alkyl naphthalene, a hydrogenated alkyl naphthalene and a mixture thereof.

Art Unit: 1712

***Reasons for allowance***

2. The following is an examiner's statement of reasons for allowance: attention is directed to paragraph number 7 of the Office action mailed December 9, 2003. Basis for the amendments can be found (1) for water concentrations in the examples and in the additive values of the individual components; and for the aromatic oil concentrations of claim 14 in the examples, at page 7 of the specification, and original claim 10.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (703) 308-0451. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Art Unit: 1712

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Daniel S. Metzmaier  
Primary Examiner  
Art Unit 1712

DSM